

UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-----------------|----------------------|------------------------|------------------|
| 10/692,309 | 10/22/2003 | Tomas Hinojos | 0739D-000107 | 8618 |
| 27572 | 7590 11/10/2004 | | EXAMINER | |
| HARNESS, DICKEY & PIERCE, P.L.C. | | | GARRETT, ERIKA P | |
| P.O. BOX 828 BLOOMFIELD HILLS, MI 48303 | | | ART UNIT | PAPER NUMBER |
| | , | | 3636 | |
| | | | DATE MAILED: 11/10/200 | 4 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | |
|--|---|---|----|--|--|
| Office Action Comments | 10/692,309 | HINOJOS, TOMAS | 31 | | |
| Office Action Summary | Examiner | Art Unit | | | |
| | Erika Garrett | 3636 | | | |
| The MAILING DATE of this communication app Period for Reply | ears on the cover sheet with the c | orrespondence address | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply of NO period for reply is specified above, the maximum statutory period we failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 86(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | ely filed will be considered timely. the mailing date of this communication. (35 U.S.C. § 133). | | | |
| Status | | | | | |
| 1) Responsive to communication(s) filed on | | | | | |
| 2a) ☐ This action is FINAL . 2b) ☑ This | action is non-final. | | | | |
| 3) Since this application is in condition for allowar | nce except for formal matters, pro | secution as to the merits is | | | |
| closed in accordance with the practice under E | x parte Quayle, 1935 C.D. 11, 45 | 3 O.G. 213. | | | |
| Disposition of Claims | | | | | |
| 4) Claim(s) 1-24 is/are pending in the application. | | | | | |
| 4a) Of the above claim(s) is/are withdrav | vn from consideration. | | | | |
| 5) Claim(s) is/are allowed. | | | | | |
| 6)⊠ Claim(s) <u>1-24</u> is/are rejected. | | | | | |
| 7) Claim(s) is/are objected to. | | | | | |
| 8) Claim(s) are subject to restriction and/or | r election requirement. | | | | |
| Application Papers | | | | | |
| 9)☐ The specification is objected to by the Examine | r. | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | |
| Replacement drawing sheet(s) including the correcti | | · |). | | |
| 11)☐ The oath or declaration is objected to by the Ex | aminer. Note the attached Office | Action or form PTO-152. | | | |
| Priority under 35 U.S.C. § 119 | | | | | |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: | priority under 35 U.S.C. § 119(a) | -(d) or (f). | | | |
| 1.☐ Certified copies of the priority documents | s have been received. | | | | |
| 2. Certified copies of the priority documents | s have been received in Application | on No | | | |
| Copies of the certified copies of the prior | ity documents have been receive | ed in this National Stage | | | |
| application from the International Bureau | • | | | | |
| * See the attached detailed Office action for a list of | of the certified copies not receive | d. | | | |
| Attachment(s) | | | | | |
| 1) Notice of References Cited (PTO-892) | 4) Interview Summary | (PTO-413) | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Da | ite | | | |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3/3/04. | 6) Other: | atent Application (PTO-152) | | | |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2,4,6-8,11-16 and 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Robinson (4,962,963). Robinson discloses the use of a seat recliner assembly comprising a drive assembly having an input axis; a driven assembly adapted to be coupled with one of the seat back (16) and the seat bottom (14) and having an output axis generally parallel to said input axis; and a transmission assembly (44) disposed between and operably connecting said drive assembly and said driven assembly, see figures 1-3. In regards to claim 2, wherein the drive assembly includes an actuator. In regards to claim 4, wherein said drive assembly includes an actuator cable (28) driven by said actuator. In regards to claim 6, wherein the driven assembly includes a threaded output shaft (32) rotatable about said output axis and a screw nut (102) disposed thereon, wherein said screw nut is reciprocally and threadably moveable along said threaded output shaft, see figures 3-4. In regards to claims 7&21, wherein the driven assembly further includes a seat arm (18) having a first end attached to the seat back and a second end pivotally connected to the screw nut. In regards to claims 8 &22, wherein the transmission assembly includes a gear train having a first helical gear (62) driving a second helical gear (64), the first helical gear rotatable about said

Art Unit: 3636

A - LI - H- 0000

input axis, and said second helical gear rotatable about said output axis. In regards to claim 11, a housing (40) for retaining said gear train. In regards to claim 12, wherein said housing is mountable to connect said recliner assembly to the other of the seat back and the seat bottom. In regards to claim 13, further comprising a seat bottom (14); a seat back (16) coupled with the seat bottom and capable of pivotal adjustment relative to the seat bottom; a seat recliner assembly (12) comprising a drive assembly having an input axis, a driven assembly adapted to be coupled with one of said seat back and said seat bottom and having an output axis generally parallel to said input axis, and a transmission assembly (44) disposed between and operably connecting said drive assembly and said driven assembly. In regards to claim 14, comprising a housing for retaining said transmission assembly. In regards to claim 15, wherein the housing is mountable to connect said seat recliner assembly to the other of said seat back and said seat bottom. In regards to claim 16, wherein the drive assembly includes an actuator. In regards to claim 18, wherein said drive assembly includes an actuator cable driven by said actuator. In regards to claim 19, wherein the drive assembly includes an input shaft driven by said actuator cable (28) and rotatable about the input axis. In regards to claim 20, wherein the driven assembly includes a threaded (32) output shaft rotatable about said output axis and a screw nut disposed thereon, wherein said screw nut (102) is threadably moveable along said threaded output shaft from a first position (figure 3) to a second position (figure 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3,5, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson in view of Wolfbauer (5,099,161). Robinson shows the use of all the claimed invention but fails to show the use of a bi-directional electric motor. Wolfbauer teaches the use of the bi-directional motor (50). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the motor to have a bi-directional motor as taught by Wolfbauer, in order for the motor to move in to directions, and it will help the occupant to adjust the seat back.

Claims 9-10 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson in view of Fisher (6,322,146). Robinson shows the use of all the claimed invention but fails to show the use of an alignment assembly including a first and second alignment plates. Fisher teaches the use of an alignment assembly including a first and second alignment plates (54,56). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the recliner with alignment plates as taught by Fisher, in order to keep the threaded portion in order to allow access to the gear portion.

Art Unit: 3636

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to a seat recliner: U.S Pat. No. US005088841A, US005823622A, US006623077B1, US006629732B1, US005556163A, US005292178A, US006193316B1, 5718482, 5707112, and 5711577.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika Garrett whose telephone number is 703-605-0758. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Supervisory Patent Examiner
Technology Center 3600

EG November 5, 2004